UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
WALSH, JOHN B

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _RCE of 4/16/08_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _2-6,8-10 and 16-22_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _2-6,8-10 and 16-22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 2, 3, 5, 6, 8-10, 16-20 and 22 are rejected under 35 U.S.C. 102(e) as being

anticipated by U.S. Patent No. 6,321,236 to Zollinger et al.

        As concerns claims 16-18, a method for executing a common task in a clustered

computing environment comprising a plurality of computers interconnected to collaborate on

said common task, said plurality of computers including at least a client computer (48) and a

shared storage medium (68) storing common data, said method comprising: maintaining, at the

shared storage medium a main list including information identifying data elements stored in the

shared storage medium and a respective version number of each data element (figures 1, 3A-3B,

4); maintaining, at each client computer, a local list (figure 1-database of 48) containing, for

each one of the data elements previously accessed from the shared storage medium, information

identifying a corresponding original data element in the shared storage medium and a respective

current version number of the data element stored in the client computer (figure 6-102);

when an application executing on a given client computer attempts to access a selected data

element, sending a request from the client computer to the shared storage medium, the request

including the information identifying the selected data element and the respective current

version number (fig. 6 -96, 102); upon receipt of the request by the shared storage medium, matching the current version number received from the client computer with the respective version number in the main list (figures 1, 5 and 6); based on the matching, sending to the client computer one of: a first reply including a confirmation that the current data version of the selected data element is valid when the current version number received from the client computer matches the version number associated with the data element in the main list (col. 3, lines 53-60; client copy current since identical to server copy no update); and a second reply including a new copy of the selected data element and a respective new version number when the version number received from the client computer does not match the version number in the main list (fig. 7 – 116; fig. 6 – 106,110); and upon receipt of the first reply from the shared storage medium, executing the common task at the client computer using the data element stored in the client computer (need not perform this step if first reply is not selected above; however inherent client will execute using the current data stored if no update), and upon receipts of the second reply, modifying the data element stored in the client computer using the received data element prior to executing the common task (fig. 7 - 116).

As concerns claims 2 and 19, wherein said sending a request from the client computer to the shared storage medium comprises sending a null-valued version number (column 9, line 63) when said selected data element is not stored on said client computer, and wherein said sending of one of a first reply and a second reply comprises sending said client computer a copy of the selected data element and a respective version number for storage on said client computer ().

As concerns claims 3 and 20, wherein said request for said data element contains an

address range (inherent stored data will have an address range) defining said selected data

element on said shared medium.

As concerns claims 5 and 22, wherein said client computer communicates with said

shared medium through a network block device driver (column 5, lines 13-15; column 5, lines

30-35).

As concerns claim 6, the method as claimed in claim 16, wherein said shared medium is a

server memory storage space (figure 1-68).

As concerns claim 8, wherein the request comprises information identifying multiple

selected data elements associated with multiple separate data structures each containing one of

multiple respective version numbers, and further comprising creating a new single data structure

in said master list associated with said selected data elements and removing said multiple

separate data structures from said master list (figure 5; 92) after said selected data elements is

accessed by said client computer.

As concerns claim 9, further comprising updating the master list with a new version

number after the selected data element is modified (figure 4).

As concerns claim 10, wherein said master list comprises a list of data structures which is

a double linked binary tree list (column 9, lines 30-32).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 4 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,321,236 to Zollinger et al. as applied above in view of U.S. Patent No. 5,574,953 to

Rust et al.

Zollinger et al. '236 do not explicitly disclose wherein said address range comprises non-

contiguous storage blocks.

Rust et al. '953 teach storing data in non-contiguous storage (abstract).

It would have been obvious to one having ordinary skill in the art at the time of the

invention to provide storing data in non-contiguous storage, as taught by Rust et al. '953, in

order to provide the expected result of a means of storing data in a fragmented storage medium.

Response to Arguments

5.   Applicant's arguments filed April 16, 2008 have been fully considered but they are not

persuasive.

The applicant argues Zollinger et al. teaches away from making execution at the client

computer dependent on a reply from the server. The claims have been given the broadest

reasonable interpretation and the reference as a whole has been considered including the multiple

embodiments disclosed by the prior art of Zollinger et al. Zollinger et al. disclose the claim

limitations as indicated in the rejection above and notes figure 6 – 96 wherein a synchronization

request is received [at the server] from the client and transmitting a reply to the client, wherein

the client will execute an application based upon any of the updates received in this reply. The

applicant has cited passages that are concerned with a particular scenario. The claims do not

recite the frequency of said requests and the reference as a whole still discloses the claim

limitations, particularly col. 7, lines 3-6 and 16-18, wherein the client is synchronized upon a request to the server and receiving a reply from the server.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Thursday from 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John B. Walsh/
Primary Examiner, Art Unit 2151